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Swine Producer's Guide

Cooperative Extension, South Dakota State University

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Website: extension.sdstate.edu

Phone: 605-688-4792

Email: sdsu.extension@sdstate.edu

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Cooperative Extension Service

Swine Producer's Guide

Swine Producer's Guide

The success of a profitable hog enterprise can, in a large part, be attributed to efficient management in use of buildings, farrowing and growing facilities, feeders, waterers, pasture, balanced rations, and breeding animals.

Tables and guides covering these areas are presented in this fact sheet to help the swine producer plan his program so he uses his resources most profitably.

GENERAL SWINE PRODUCTION REQUIREMENTS

	50 to 75 lbs.	75 to 125 lbs.	125 to 210 lbs.	Sow, gestation	Sow plus litter	Herd boar
Space needs of growing pigs and sows						
Sleeping space per pig, sq. ft.*	3	4	6	—	—	30-80
Feeding space per pig, concrete lot, sq. ft.	5	6	8	—	—	—
Shelter space for sows, sq. ft.	—	—	—	15-20	—	—
Inside	—	—	—	—	50-75	—
Outside	—	—	—	—	30-50	—
Pigs per linear foot of self feeder space (or per hole)†	6	6	6	—	—	1
For hand-feeding or hand-watering, linear feet of trough per pig	¾	1	1¼	1½-2	2 feet plus creep	—
Approximate daily feed consumption						
Feed consumed, lbs.	3.0	5.5	6.8	4-5.5	9-12	5-7
Manure produced‡						
Solids, lbs.	2.9	5.2	6.5	4.5	10	6.5
Total, gal., av.§	0.65	1.30	1.80	1.40	2.80	1.80
Drinking water requirements						
25 pigs per cup gravity water; 50 pigs per cup, pressure (40 psi) water	—	—	—	—	—	—
Water required per day, gal.	1.25	2.00	2.50	4.5	6	5-7
Self-feeder space for protein supplement						
On dry lot, pigs per foot or per hole	4	5	6	—	—	—
On legume pasture, pigs per foot or per hole	5	6	7	—	—	2
Pasture area needed for swine, head per acre	15-25	10-20	10-20	1-5	1-5	¼ to ½ acre/boar

*Gate or movable fence can be used to limit sleeping space (to reduce cleaning) while pigs are small.

†Figure both sides of a feeder. For example, a 6 foot feeder open on both sides has 12 feet of feeding space.

‡Does not include wash or rain water.

§Assume 59 lbs. per cubic foot average density, liquids plus solids.

SPRAY COOLING HOGS

1 nozzle per 25-30 hogs
Nozzles 4 feet to 6 feet from floor
Approximately 8 feet apart
1 gallon per hour at 10-30 psi
Thermostatic water shutoff at 78°

FARROWING SPACE REQUIRED IN CENTRAL AND MOVABLE HOUSING SYSTEMS

Weight of sow	Pens, with creeps (sq. ft.)	Central housing			Movable housing (ft.)
		Farrowing stalls		Brooder width (ft.)	
		Width (ft.)	Length (ft.)		
350-400	55	2	7-8	1½	7x8
400-500	60-70	2¼	7-8	1½	7x9 or 8x9

By LaVerne Kortan, associate Extension livestock specialist
and Louis Lubinus, Extension agricultural engineer

An animal unit is a common denominator based on feed consumption. For example, it is generally estimated that the feed allowance of one mature cow will feed five hogs raised to 200 pounds. For this reason, the "animal unit per head" on this class and age of animals is 0.2. The table below gives the approximate animal units for different classes and ages of livestock.

ANIMAL UNITS

Type of livestock	Animal units per head
Horses	1
Cows	1
Bulls	1
Young cattle over 1 year	0.5
Calves	0.25
Brood sows or boars	0.4
Hogs raised to 200 pounds	0.2
Ewes or rams	0.14
Lambs	0.07
Poultry (per 100)	1

SUN SHADES

(Paint top side roof white, bottom side black)

Wt. of pigs, lbs.	Sq. ft. per head
40 to 75	4
75 to 125	6
125 to 220	8

FEED SUPPLY NEEDED ACCORDING TO SEX AND/OR AGE

Breeding gilt from weaning (35 pounds) to breeding age (8 months):

Corn or equivalent	14 bushels
Protein supplement	120 pounds
Legume pasture	.1 acre

Sow (gilt) breeding to farrowing (winter gestation):

	Hand feeding	Self-feeding
Corn or equivalent	10 bushels	16 bushels
Protein supplement	115 pounds	115 pounds

Sow (gilt) litter, breeding to farrowing, farrowing to weaning, plus creep feed for pigs (25 pounds per pig):

¾ to 1 ton complete mixed balanced ration (amount needed will be approximately ¾ ton if hand fed and 1 ton if sow is self fed)

Sow and litter, farrowing to weaning (8 weeks):

Corn or equivalent	9.5 bushels
Protein supplement	130 pounds
Creep ration	200 pounds

Spring pig on pasture, weaning to market (35 to 225 pounds):

Corn or equivalent	10.5 bushels
Protein supplement	80 pounds
Legume pasture	.05 acre

Fall pigs in dry lot, weaning to market (35 to 225 pounds):

Corn or equivalent	11.5 bushels
Protein supplement	100 pounds

Boar for 1 year:

Corn or equivalent	20 bushels
Protein supplement	120 pounds
Pasture	¼ acre

NUTRIENT REQUIREMENTS FOR SWINE PER POUND OF TOTAL RATION

	Market stock						Breeding stock		Lactating females	
	Liveweight of stock, lbs.						Pregnant females and breeding boars		Lactating females	
	25	50	100	150	200	250	Young stock (300 lbs.)	Adults (500 lbs.)	Gilts (350 lbs.)	Adults (450 lbs.)
Expected daily gain, lb.	0.8	1.2	1.6	1.8	1.9	1.8	1.00	0.7	—	—
Total feed (air dry), lb.	2.0	3.2	5.3	6.8	7.5	8.3	6.0	7.5	11.0	12.5
Total digestible nutrients, %	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Crude protein, %	18.0	16.0	14.0	13.0	12.0	12.0	15.0	14.0	15.0	14.0
Inorganic nutrients:										
Calcium, %	0.65	0.65	0.50	0.50	0.50	0.50	0.6	0.6	0.6	0.6
Phosphorus, %	0.50	0.50	0.40	0.40	0.40	0.40	0.4	0.4	0.4	0.4
Salt (NaCl), %	0.50	0.5	0.50	0.50	0.50	0.50	0.5	0.5	0.5	0.5
Vitamins:										
Vitamin A, I.U.*	600	400	400	400	400	400	1333	1333	1333	1333
Vitamin D, I.U.	90.0	90.0	90.0	90.0	90.0	90.0	60.0	60.0	60.0	60.0
Thiamine, mg.	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Riboflavin, mg.	1.2	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5	1.5
Niacin, mg.	8.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pantothenic acid, mg.	5.0	5.0	4.5	4.5	4.5	4.5	6.0	6.0	6.0	6.0
Pyridoxine, mg.	0.6	0.6	—	—	—	—	—	—	—	—
Choline, mg.	400.0	—	—	—	—	—	—	—	—	—
Vitamin B ₁₂ mcg.	7.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

*Carotene and vitamin A values based on 1 mg. carotene equals 533 I.U. vitamin A for pigs. Vitamin A requirement can be met by either carotene or vitamin A; both are not needed.

Source: National Research Council, publication 648.